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10/749,926	12/30/2003	Nancy S. Borkowski	10559-876001 / P17395	6685
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FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER NGUYEN, PHUONGCHAU BA	
			ART UNIT 2616	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/749,926

Applicant(s)

BORKOWSKI, NANCY S.

Examiner

Phuongchau Ba Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

*Claim Objections*

1. Claim 8 is objected to because of the following informalities: "being operable" should be removed from the claimed language to make the claim more positive recitation. Appropriate correction is required.

*Claim Rejections – 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8–14 are rejected under 35 U.S.C. 101 because "a computer program product tangibly embodied in an information carrier" as recited in claim 8 is a nonfunctional descriptive material, wherein "*When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic*

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*carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval in Abele, 684 F.2d at 907, 214 USPQ at 687). See also In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component, and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory and should be rejected under 35 U.S.C. 101." See MPEP 2106.01.*

Claims 8-14 are also rejected under 35 U.S.C. 101 because claim 8 recited "a computer program product being operable to cause a machine to..." is a data structure, wherein "*Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed*

*computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. Computer programs are often recited as part of a claim. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process." See MPEP 2106.01.*

***Claim Rejections – 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The subject matter is "a computer product, tangibly embodied in an information carrier" not found in the original specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Please clarify whether claim 15 is a process or an apparatus claim, wherein the preamble recited (a line

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monitor" as would indicate claim 15 as an apparatus claim; however, the body of claim 15 recited a process to monitor and a process to provide as in method claim.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is



determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Mannering (6,404,804).

Regarding claims 1 and 8,

Mannering (6,404,804) discloses a method comprising:

monitoring a bit (in register CMD/STAT 30-fig.2) in a coprocessor (processor master DSP 22-fig.2) included in a packet engine (modem 20-fig.2) that represents an operation associated with a packet processor (processor slave DSP 24-fig.2) that includes the packet engine; and

providing the packet engine the status of the bit (col.6, lines 24-26, and col.7, line 7-col.8, line 12).

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Regarding claims 2, 9, 16, 23, 26, Mannering further discloses wherein monitoring the bit includes maintaining an indicator representing the status of the bit (CMD/STAT 30-fig.2, for maintaining an indicator of the status of the bit; see also step 64-fig.7).

Regarding claims 3, 10, 17, 24, 27, 30, Mannering further discloses wherein monitoring the bit includes maintaining an index identifying the bit (see steps 62-64, fig.7, wherein keeping the list of each error-free and error in the received word corresponding to location in bit).

Regarding claims 4, 11, 18, Mannering further discloses wherein monitoring the bit includes maintaining an indicator representing completion of monitoring of the bit (col.7, lines 43-50, wherein upon the completion of received command from command/status register 30, the modem will reset that same bit).

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Regarding claims 5, 12, 19, Mannering further discloses wherein monitoring the bit includes applying a logical mask to the bit (step 64-fig.7, for setting the bit in InMaskBuff to 1 for the received error location in the received word).

Regarding claims 6, 13, 20, Mannering further discloses wherein the bit represents servicing status of a digital subscriber line (col.6, line 57-col.7, line 34, i.e., acknowledgement bit, status bit,...,etc..).

Regarding claims 7, 14, 21, Mannering further discloses wherein the bit is a portion of a word (see fig. 4, wherein bit is a portion of the word, i.e., checksum/CRC).

Regarding claim 15,

Mannering (6,404,804) discloses a line monitor (modem 20, fig.2) comprises:

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a process to monitor a bit (in register CMD/STAT 30-fig.2) in a coprocessor (processor master DSP 22-fig.2) included in a packet engine (modem 20-fig.2) that represents an operation associated with a packet processor (processor slave DSP 24-fig.2) that includes the packet engine; and

a process to provide the packet engine the status of the bit (col.6, lines 24-26, and col.7, line 7-col.8, line 12)..

Regarding claim 22,

Mannering (6,404,804) discloses a system comprising:

a coprocessor (processor master DSP 22-fig.2) included in a packet engine (modem 20-fig.2) that is capable of,

monitoring a bit (in register CMD/STAT 30-fig.2) representing an operation associated with a packet processor (processor slave DSP 24-fig.2) that includes the packet engine; and

providing the packet engine the status of the bit (col.6, lines 24-26, and col.7, line 7-col.8, line 12).

Regarding claim 25,

Mannering (6,404,804) discloses a packet forwarding device (computer 12, 14, fig.1) comprising:

an input port for receiving packets (not shown, but inherent therein the computer 12, 14-fig.1, since computers 12 and 14 having modems M12 and M14 for communicating with each other);

an output for delivering the received packets (not shown, but inherent therein the computer 12, 14-fig.1); and

a coprocessor (processor master DSP 22-fig.2) included in a packet engine (modem 20-fig.2) that is capable of,

monitoring a bit (in register CMD/STAT 30-fig.2) representing an operation associated with a packet processor (processor slave DSP 24-fig.2) that includes the packet engine, and

providing the packet engine the status of the bit (col.6, lines 24-26, and col.7, line 7-col.8, line 12).

Regarding claim 28,

Mannering (6,404,804) discloses a method comprising:

monitoring a bit (in register CMD/STAT 30-fig.2) in a monitoring coprocessor (processor master DSP 22-fig.2) included in a network processing engine (modem 20-fig.2) that represents the servicing availability of a digital subscriber line associated with a network processor (processor slave DSP 24-fig.2) that includes the network processing engine; and


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providing the network processing engine data representing the servicing availability of the digital subscriber line (col.6, lines 24-26, and col.7, line 7-col.8, line 12).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 571-272-3148. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Phuongchau Ba Nguyen  
Examiner  
Art Unit 2616

  
HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600